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## Forestry Canada - Maritimes Region

# TECHNICAL NOTE

### FOREST INSECTS AND DISEASES IN CAPE BRETON HIGHLANDS NATIONAL PARK IN 1990

Personnel of the Forest Insect and Disease Survey regularly survey national parks for forest pests. The following are some of the pests or problems observed in Cape Breton Highlands National Park, in 1990.

**WIND DAMAGE** - In 1989, a strong southeasterly wind in mid-June caused considerable damage to hardwood foliage in the Park and elsewhere on Cape Breton Island. In 1990, twig and branch dieback averaged 25% of crown damage of sugar maple at Petit Etang.

Several pests affected birch in the Park in 1990, the major ones are briefly discussed below:

**BIRCH CASEBEARER** leaf damage on white birch averaged 24%, with the highest being 47% at Petit Etang and 35% at Neils Harbour. Only trace or light damage was observed elsewhere in the Park.

**BIRCH SKELETONIZER** a late summer feeder of white birch, caused severe browning again in 1990. Damage was up from 1989 with patches of moderate or severe damage throughout the Park. The most damage with all, or nearly all, the leaves affected occurred at Rigwash Brook and Neils Harbour.

**DETERIORATION OF WHITE BIRCH** is characterized by a brown and scorched-like appearance of the leaves. Affected leaves curl up and start dropping as early as mid-August. Damage was light to moderate in western areas of the Park.

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Other hardwood pests were:

Red maple foliage damage averaged 32% by **ocellate gall midge** and 18% by **maple bladdergall mite. Leafhopper** damaged an average of 15% of the leaves on pin cherry, red maple, and white birch. **Mite galls** were observed on an average of 13% of white birch and white ash leaves.

The major pests observed on softwoods were:

**SPRUCE BUDWORM** caused widespread devastation to the coniferous forests in the Park in the 1970s and early 1980s. From 1982 to 1987, low populations were present; in 1988 and 1989, no damage was observed. In 1990, a few budworm larvae were collected in the Park. Minimal damage was observed on balsam fir, white spruce, and black spruce at several locations in the Park.

**HEMLOCK LOOPER** is a wasteful feeder that seldom eats the whole needle. Hemlock loopers are capable of causing tree mortality in mature stands of balsam fir. A few larvae were observed on larch, white spruce, and balsam fir throughout the Park in 1990.

**SPRUCE BUDMOTHS** feed on the developing white spruce buds under the bud cap, which the insect secures to the growing shoot with silk. Damage was evident throughout the Park in 1990. The number of affected shoots averaged 10% with the highest being 24% at Petit Etang.

**EASTERN SPRUCE GALL ADELGIDS**, an introduced species, form galls on new shoots and cause foliage to take on a ragged appearance. An average of 13% of the white spruce shoots were damaged throughout the Park with the highest damage being 44% at Neils Harbour.

Other softwood pests were:

**Balsam woolly adelgid** affected 48% of the balsam fir twigs at Fox Back Lake; **eastern dwarf mistletoe** affected 40% of the white spruce near Petit Etang; **larch casebearer** affected 7% of the larch shoots at French Lake; **balsam twig aphid, balsam gall midge**, and **spruce bud midge** were found at very low levels on balsam fir, black spruce, and white spruce throughout the Park. **Needle rust** and **needle cast** caused minimal damage to black spruce, white spruce, and balsam fir in the Park in 1990.

**GYPSY MOTH** is a major pest of forest and shade trees in many parts of the United States, Southern Ontario, and Southern Quebec. This insect is now established in western Nova Scotia. In 1990, 21 gypsy moth pheromone traps were placed by Parks personnel. Since gypsy moth trapping began in 1985, only a few adult male moths were caught in the Park, this trend continued in 1990 with only one male moth being trapped. Gypsy moth has not yet established a population in the Park. To assist with the continuing surveillance, park visitors who find suspected gypsy moths should report them to Park personnel.

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